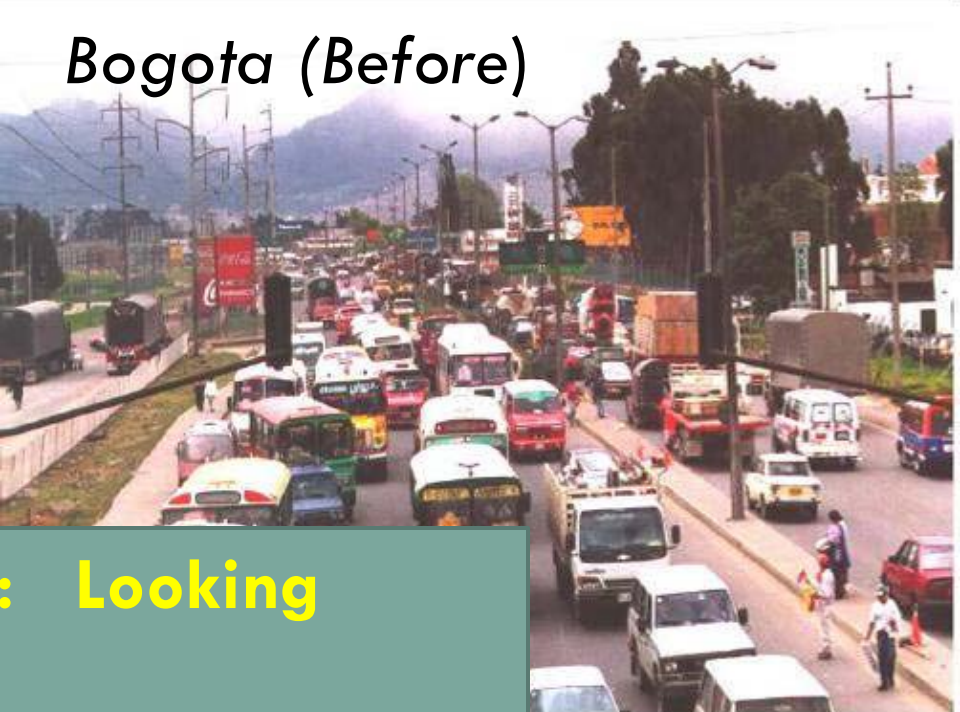
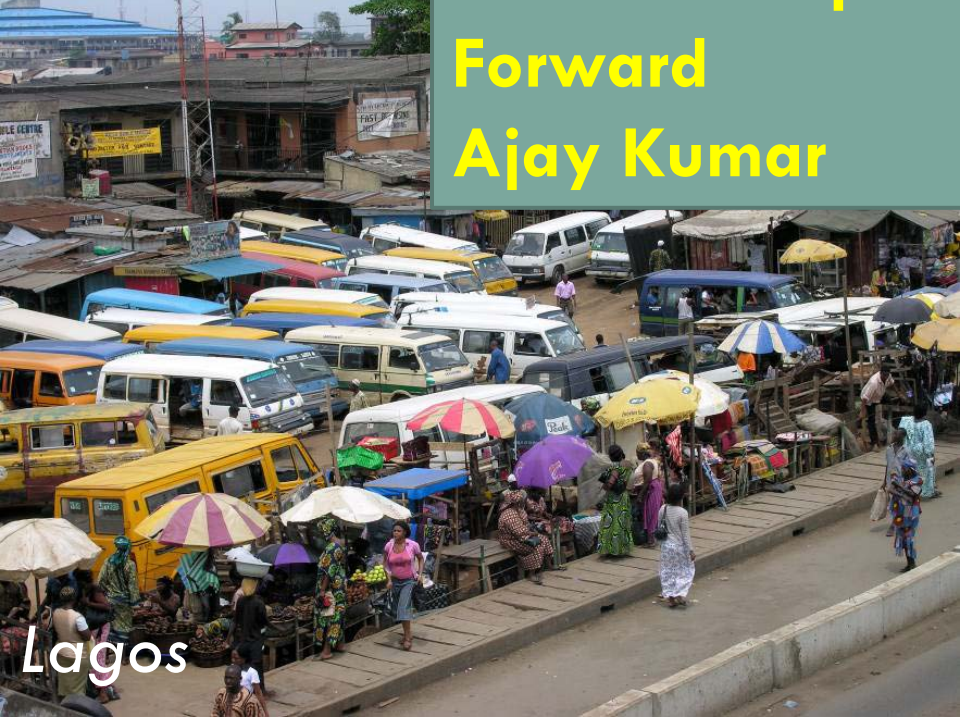


Lima



Bogota (Before)

Urban Transport: Looking Forward  
Ajay Kumar



Lagos

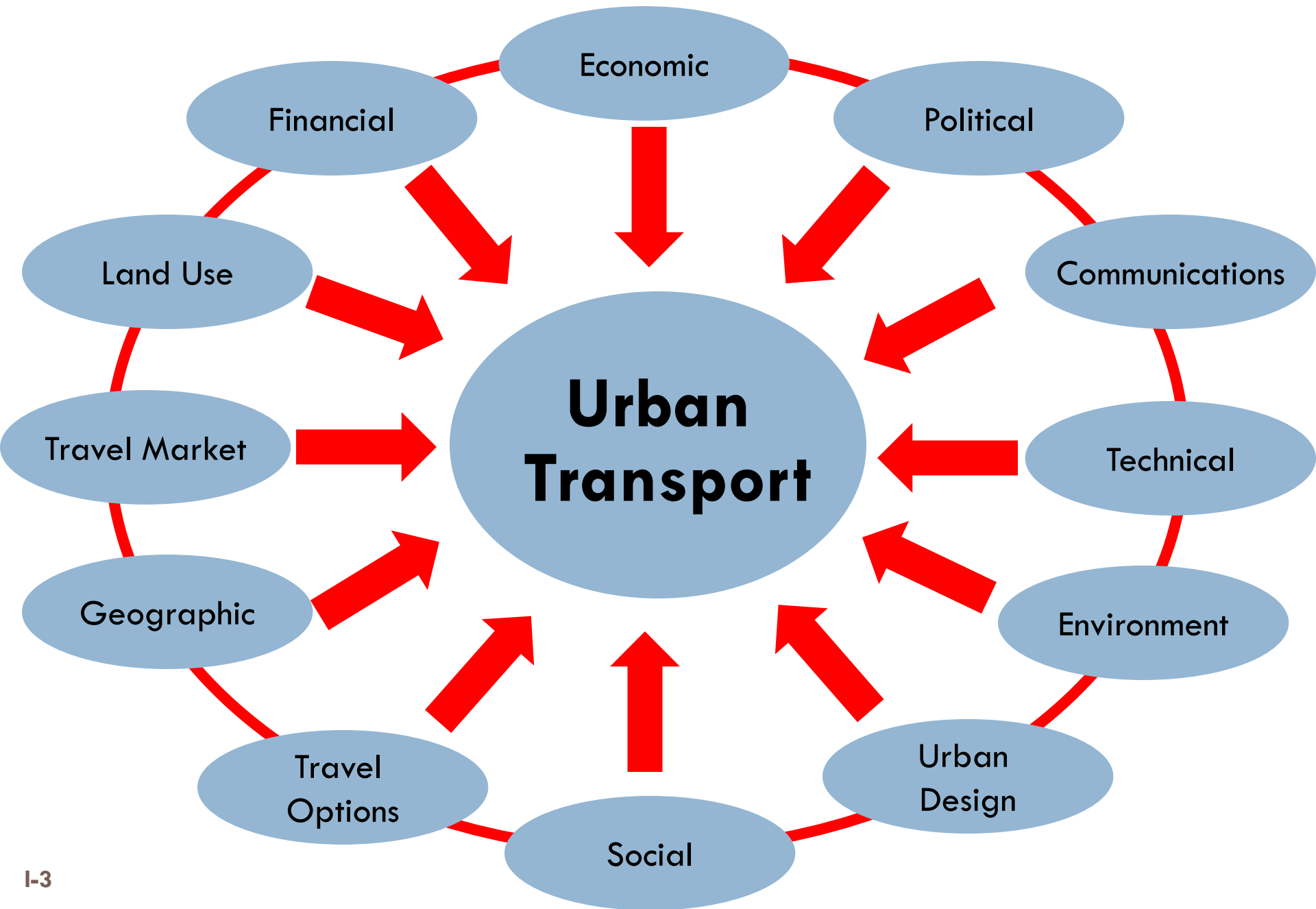


Dar es Salaam

# Far-Reaching Impacts of Transport

I-2

- Transport effects almost every aspect of life in cities
  - Economic, land development
  - Environmental quality, local and global
  - Health
  - Social equity
- Addressing urban transport problems requires an understanding of a complex set of factors



# Urban Transport Concerns

I-4

- Congestion
- Mobility and access
- Sustainability
  - Health (Safety, Air Quality)
  - Land Use
  - Energy
  - Climate change
  - Economic/social development
  - Existing system



# Symptom: Traffic Congestion

I-5



# Possible Cause of Congestion

## Land Use

I-6

- Poor land use, site planning
  - Decentralization
  - Widely scattered, single-purpose developments
  - Site planning not pedestrian or public transport “friendly”
  - Site planning forces auto dependency

# Changes in Land Use

7

- **Accra**—in the past decade, population doubled & city area tripled—reducing density from 14,000 to 8,000 persons per sq km
- **Abidjan**—city population has doubled every 7 yrs since 1945 upto early 90s
- **Dakar**—many new satellite towns are located >30km from city center
- **Lagos**—grown beyond State boundary into adjoining state of Ogun
- In all cities, two-third of the jobs are located in city center
- **RESULT**—commuting times have increased to over one hour each way (over 2 hours in some cities)

# Possible Cause of Congestion

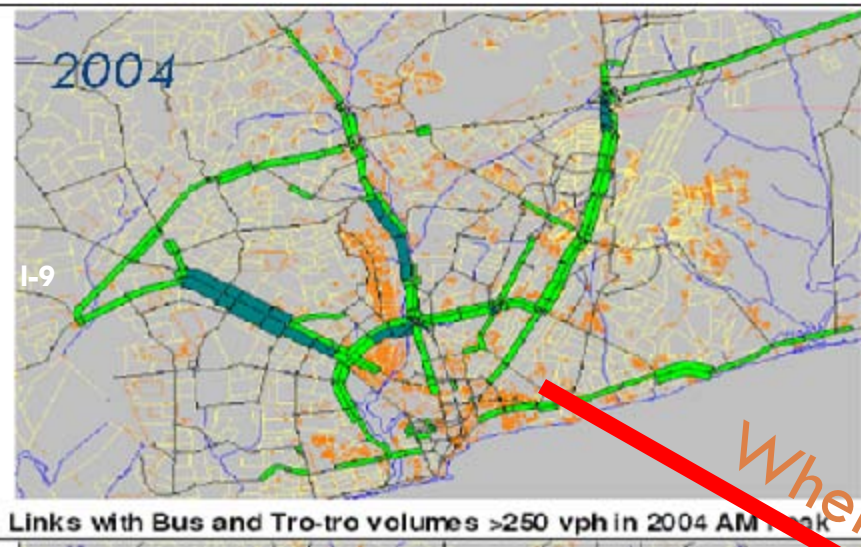
## Demand Side Changes

I-8

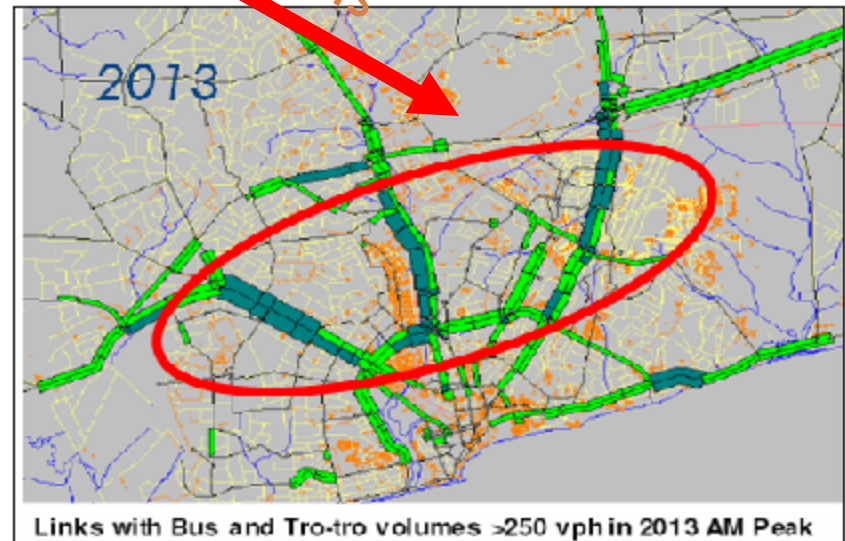
- Explosive population, income and motorization growth
  - ▣ By 2025, >50% urban population
  - ▣ By 2025, >50% increase in motorized transport
  - ▣ Exponential growth in motorcycle
- Changing demographics
  - ▣ Declining household sizes (grown children moving to own residences)
  - ▣ Younger/older population
- Changing origin-to-destination patterns
  - ▣ More destinations outside City Center



# Travel Over Time Accra, Ghana



*Where the Growth is*



# Possible Cause of Congestion

## Supply Side Changes

I-10

- Non-Motorized Transport
  - ▣ Declining space dedicated
  - ▣ Right-of-Way (ROW) encroachment
- Public transport system
  - ▣ On-street, poorly regulated competition
  - ▣ Route structure does not match travel needs
  - ▣ Insufficient capacity in major corridors
- Roads
  - ▣ Poor design/condition /connectivity
    - Average road density in SSA cities is 300m/1000 population
  - ▣ Ineffective parking /traffic management
  - ▣ Poor enforcement of traffic rules

# Lessons from Past

- Multiple institutions involved with planning, regulation, licensing, resource allocation and enforcement
- Lack of coordinated land use-transport planning
- Inadequate environmental and social impact assessment
- Deterioration in coverage and quality of organized public transport services
  - ▣ Proliferation of unregulated private sector operators (minibuses/taxis/motor cycles)

# Lessons from Past

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- Importance of infrastructure
  - ▣ Poor quality roads & lack of capacity reduce productivity of urban transport fleets
  - ▣ Funding needs to be increased to reflect importance of urban transport in national system
  
- Existing regulation should be enforced
  - ▣ Control parking
  - ▣ Vehicle inspections

# Lessons from Past

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## Monitoring system performance

- ▣ Basic statistics not collected and reported in an organized way
- ▣ As a result, difficult to monitor changes and develop solutions



# Strategic Planning for Urban Transport: Why?

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- Transport problems growing in magnitude and complexity
- Related to other strategic issues
- Transport too often implemented and operated in pieces defined by mode and geography; too little decision support information relating to entire metropolitan multi-modal system
- Focus on pre conceived solutions, not an understanding of problems and issues

# Starting Point? A Vision



- A vision of the metropolis in the future (20+ years) including transport and related sectors
- Projects may be outputs, not inputs, if not already committed
  
- *“Vision: Two line, 40 km Metro, 5 km monorail and three ring roads by 2020”*

# Planning Process

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All decisions are “political” irrespective of political system, but in developing countries, decision makers are often uninformed

- ▣ No objective, competent decision support information for investments
- ▣ Lack of transparency

# Metropolitan Vision: *What Should the Metropolitan Area Look Like in 20 Years?*

II-17

- Vision covers transport and related quality of life issues
- Transport perspective goes beyond congestion considerations:
  - ▣ Safety
  - ▣ Mobility as well as Access
  - ▣ Environment
- Vision must be realistic and reasonably consistent with financial and other potential resources

# Emerging Trend: Growth in Motorcycles

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# Declining local environment



# Factors influencing growth of motorcycles

+ ve		-ve	Push	Pull
Demand	Supply			
- Time savings	- Easy availability	- Congestion	- Urban sprawl	- Inexpensive
- Door-to-door service	- Limited street space	- Pollution	- Rising inc. poor secondary road network	- Declining costs
- Improve mobility	- Multipurpose	- Accidents	- poor road quality	- Easy credit
- Easy access	- Transport freight and passenger	- Safety/crime unregulated	- Low density	- High unemployment
- Demand responsive			- Uncontrolled growth	- Low car ownership
- Easy maneuverability			- Absence of safe, secure, affordable alternatives	- unregulated
- Employment generation				

# The Way Forward

21

- Infrastructure
  - ▣ Increase funding for maintenance
  - ▣ Rehabilitate existing roads
  - ▣ Small-scale capacity expansion
  - ▣ Provide exclusive bus lanes (BRT “systems”)
  
- Traffic Management
  - ▣ Enforce existing regulations on parking, etc.
  - ▣ Junction design
  - ▣ Bus priorities; junctions & bus lanes

# The Way Forward

22

- Develop capacity for public transport planning and regulation
- Staged introduction of route structure & allocation / licensing
- Route franchises can be allocated by agreement / negotiation with existing operators
- Develop integrated land use-transport planning framework and appropriate pricing strategies

# Effective Strategic Metropolitan Transport Planning

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- **Comprehensive**
- **Continuous**
- **Cooperative**
- **Connected**
- **Championed**
- **Communicated**



**THANK YOU**